REMARKS

The foregoing Preliminary Amendment is requested in order to delete the multiple dependent claims and avoid paying the multiple dependent claims fee.

Early action on the merits is respectfully requested.

Respectfully submitted,

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CLAIMS

35. A vaccine for inducing an immune response in a patient effective in the prophylactic treatment against, or therapeutic treatment of, asthma which comprises, as active agent, immunogenic lipoarabinomannan (LAM) formulated for respiratory administration to said patient.

36. A vaccine as claimed in claim 35 wherein the immune response induced is not, or not predominantly, a CD1 mediated immune response.

37. A vaccine for reducing the severity of asthma comprising an immunologically effective amount of immunogenic LAM formulated for respiratory administration.

38. A vaccine for reducing the risk of developing asthma comprising an immunologically effective amount of immunogenic LAM formulated for respiratory administration.

39. A vaccine according to claim 35 in which said immunogenic LAM is isolated from a mycobacterium.

40. A vaccine according to claim 39 in which said immunogenic LAM is isolated from an *M. bovis* organism.

41. A vaccine according to claim 40 in which said *M. bovis* organism is *M. bovis* strain AN5.

42. A vaccine according to claim 35 in which said immunogenic LAM is free of bacterial nucleic acid.

43. A vaccine according to claim 35 wherein said LAM contains, as its saccharide component, from 27% to 52% mannose and from 73% to 48% arabinose.

44. A vaccine according to claim 35 wherein said LAM contains, as its saccharide component, from 40% to 50% mannose and from 60% to 50% arabinose.

45. A vaccine according to claim 35 wherein said LAM contains, as its saccharide component, approximately 45% mannose and approximately 55% arabinose.

46. A vaccine according to claim 35 in which said immunogenic LAM is a fluid.

47. A vaccine according to claim 35 which further comprises a respiratorially acceptable adjuvant.

48. A vaccine according to claim 35 which further comprises a secondary immunogen selected from one or more Th1 type immune response inducing substances.

49. A vaccine according to claim 48 in which *Mycobacterium bovis* (Bacillus Calmette-Guerin) is included as said Th1 type immune response inducing substance.

#2 CONT.

50. A method of prophylactically treating a non-asthmatic patient against asthma which comprises the step of inducing an immune response in said patient by respiratorially administering an effective amount of immunogenic LAM.

51. A method of therapeutically treating asthma in a patient which comprises the step of inducing an immune response in said patient by respiratorially administering an effective amount of immunogenic LAM.

52. A method according to claim 50 in which the immune response induced is not, or not predominantly, a CD1 restricted immune response.

53. A method according to claim 51 in which the immune response induced is not, or not predominantly, a CD1 restricted immune response.

54. A method according to claims 50 in which said immunogenic LAM is administered in the form of a vaccine as claimed in claim 35.

55. A method according to claim 51 in which said immunogenic LAM is administered in the form of a vaccine as claimed in claim 35.

56. A method according to claim 50 in which said immunogenic LAM is administered by inhalation through the mouth of said patient.

57. A method according to claim 51 in which said immunogenic LAM is administered by inhalation through the mouth of said patient.

58. A method according to claim 50 in which said immunogenic LAM is administered intranasally to said patient.

59. A method according to claim 51 in which said immunogenic LAM is administered intranasally to said patient.

60. A device for prophylactically or therapeutically treating asthma which includes a container from which a vaccine according to claim 35 is dispensable to the airways of a patient in need of such treatment.

61. A device according to claim 60 from which said vaccine is dispensable by inhalation through the mouth of a patient.

62. A device according to claim 60 from which said vaccine is intranasally dispensable.

A2 CONCLUD.

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